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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,180	02/28/2002	Kazumi Ogura	0965-0381P-SP	4893

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EXAMINER

FASTOVSKY, LEONID M

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/084,180

Applicant(s)

OGURA ET AL.

Examiner

Leonid M Fastovsky

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claim 8 has been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected claim, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nobuyuki (JP10321354) in view of Hosokawa (6,623,563).

Noboyuki teaches a heater device 1, comprising a support base comprising an aluminum support base 3a, a heating element 2, a slab-shaped, skeletal member 3b disposed so as to be vertically symmetrical with respect to the heating means. However, Noboyuki teaches only that the melting point of the skeletal member is 400 degree Celsius (Table 2) and does not teach the metallic skeletal member and the aluminum having low contents of magnesium and copper. Hosokawa discloses a skeletal member 117-118 made out of steel, titanium, nickel or mixtures of aluminum (Col. 2, lines 50-60) and an operating temperature around 660 degree C (Col.4, lines 28-31). It would have been obvious to one having ordinary skill in the art to modify Noboyuki's device to

include Hosokawa's skeletal member made out these metals to provide the susceptor 111 with mechanical strength at the higher temperature of 850 degree C or more because steel can sustain these temperatures as taught by Hosokawa (Col. 2, lines 44-47). Also, it would have been a matter of design choice to use the aluminum alloy having low contents of magnesium and copper because it was well known in the art that magnesium and copper additives improve the aluminum strength at high temperatures.

4. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noboyuki in view of Hosokawa and further in view of Shamouilian et al (6,440,221). Noboyuki in view of Hosokawa teaches the claimed invention substantially as disclosed and as claimed. However Noboyuki is silent regarding the skeletal member having holes in a honeycomb pattern. Shamouilian discloses holes 115 formed in the heater 95. It would have been obvious to one having ordinary skill in the art to modify the modified invention of Noboyuki in view of Hosokawa to include holes in the skeletal member to provide a uniform distribution of heat transfer gas to the receiving surface 105 of the member 100 as taught by Shamouilian (Col.4, lines 25-34), because the beneficial improvement in heat transfer for member 100 of Shamouilian's device by having the holes in the surface 105 should also be beneficial for the skeletal member of Noboyuki in view of Hosokawa.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noboyuki in view of Hosokawa and further in view of Shamouilian.

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Noboyuki in view of Hosokawa teaches the heating device 1 for holding an article to be heated. However, he does not teach a film material throwing means. Shamoulian discloses an article 70 to be heated and film material throwing means 45 and 50 for throwing a material for a film onto the article. It would have been obvious to one having ordinary skill in the art to modify the invention of Noboyuki in view of Hosokawa to include the film throwing means to process a semiconductor substrate 70 under uniform temperature control system 145 as taught by Shamoulian (Abstract and Col. 3, lines 57-67), in order to prevent temperature-induced stresses in the semiconductor substrate.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noboyuki in view of Hosokawa, because it claims product by process. Because the product- the heater device- is rejected over Noboyuki in view of Hosokawa as stated in paragraphs 1-5, claim 9 is also rejected because it claims the making of a prior art product .

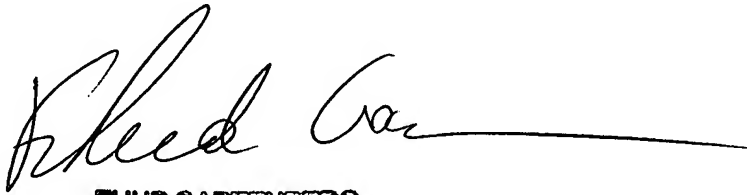
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid M Fastovsky whose telephone number is 703-306-5482. The examiner can normally be reached on M-Th. 8.00 am -6.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 703-308-2634. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leonid M Fastovsky
Examiner
Art Unit 3742

Imf

A handwritten signature in black ink, appearing to read 'Ehud Gartensberg', followed by a long horizontal line.

EHUD GARTENBERG
PRIMARY EXAMINER